

Title 47: Telecommunication

PART 95—PERSONAL RADIO SERVICES

Subpart C—Radio Control (R/C) Radio Service

Source: 48 FR 24890, June 3, 1983, unless otherwise noted.

General Provisions

§ 95.201 (R/C Rule 1) What is the Radio Control (R/C) Radio Service?

The **R/C** Service is a private, one-way, short distance non-voice communications service for the operation of devices at remote locations.

§ 95.202 (R/C Rule 2) How do I use these rules?

(a) You must comply with rules (see **R/C** Rule 18, §95.218, for the penalties for violations) when you operate a station in the **R/C** service from:

(1) Within or over the territorial limits of places where radio services are regulated by the FCC (see **R/C** Rule 5, §95.205);

(2) Aboard any vessel or aircraft registered in the United States; or

(3) Aboard any unregistered vessel or aircraft owned or operated by a United States citizen or company.

(b) Your R/C station must comply with technical rules found in subpart E of part 95.

(c) Where the rules use the word “you”, “you” means a person operating an R/C station.

(d) Where the rules use the word “person,” the rules are concerned with an individual, a corporation, a partnership, an association, a joint stock company, a trust, a state, territorial or local government unit, or other legal entity.

(e) Where the rules use the term “FCC,” that means the Federal Communications Commission.

(f) Where the rules use the term “R/C station,” that means a radio station transmitting in the R/C Radio Service.

§ 95.203 (R/C Rule 3) Am I eligible to operate an R/C station?

You are authorized to operate an R/C station unless:

(a) You are a foreign government, a representative of a foreign government, or a federal government agency;
or

(b) The FCC has issued a cease and desist order to you, and the order is still in effect.

§ 95.204 (R/C Rule 4) Do I need a license?

You do not need an individual license to operate an **R/C** station. You are authorized by this rule to operate your **R/C** station in accordance with the rules in this subpart.

§ 95.205 (R/C Rule 5) Where may I operate my R/C station?

You are authorized to operate your **R/C** station from:

(a) Within or over any area of the world where radio services are regulated by the FCC. Those areas are within the territorial limits of:

(1) The fifty United States

(2) The District of Columbia

Caribbean Insular areas

(3) Commonwealth of Puerto Rico

(4) Navassa Island

(5) United States Virgin Islands (50 islets and cays)

Pacific Insular areas

(6) American Samoa (seven islands)

(7) Baker Island

(8) Commonwealth of Northern Mariana Islands

(9) Guam Island

(10) Howland Island

(11) Jarvis Island

(12) Johnston Island (Islets East, Johnston, North and Sand)

(13) Kingman Reef

(14) Midway Island (Islets Eastern and Sand)

(15) Palmyra Island (more than 50 islets)

(16) Wake Island (Islets Peale, Wake and Wilkes)

(b) Any other area of the world, except within the territorial limits of areas where radio services are regulated by—

(1) An agency of the United States other than the FCC. (You are subject to its rules.)

(2) Any foreign government. (You are subject to its rules.)

(c) An aircraft or ship, with the permission of the captain, within or over any area of the world where radio services are regulated by the FCC or upon or over international waters. You must operate your **R/C** station according to any applicable treaty to which the United States is a party.

§ 95.206 (R/C Rule 6) Are there any special restrictions on the location of my R/C station?

(a) If your **R/C** station is located on premises controlled by the Department of Defense, you may be required to comply with additional regulations imposed by the commanding officer of the installation.

(b) If your **R/C** station will be constructed on an environmental sensitive site, or will be operated in such a manner as to raise environmental problems, under §1.1307 of this chapter, you must provide an environmental assessment, as set forth in §1.1311 of this chapter, and undergo environmental review §1.1312 of this chapter, before commencement of construction.

(c) Anyone intending to operate an **R/C** station on the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra in a manner that could pose an interference threat to the Arecibo Observatory shall notify the Interference Office, Arecibo Observatory, HC3 Box 53995, Arecibo, Puerto Rico 00612, in writing or electronically, of the location of the unit. Operators may wish to consult interference guidelines, which will be provided by Cornell University. Operators who choose to transmit information electronically should e-mail to: prcz@naic.edu.

(1) The notification to the Interference Office, Arecibo Observatory shall be made 45 days prior to commencing operation of the unit. The notification shall state the geographical coordinates of the unit.

(2) After receipt of such notifications, the Commission will allow the Arecibo Observatory a period of 20 days for comments or objections. The operator will be required to make reasonable efforts in order to resolve or mitigate any potential interference problem with the Arecibo Observatory. If the Commission determines that an operator has satisfied its responsibility to make reasonable efforts to protect the Observatory from interference, the unit may be allowed to operate.

[48 FR 24890, June 3, 1983, as amended at 55 FR 20398, May 16, 1990; 62 FR 55535, Oct. 27, 1997; 70 FR 31374, June 1, 2005]

How To Operate an R/C Station

§ 95.207 (R/C Rule 7) On what channels may I operate?

(a) Your **R/C** station may transmit only on the following channels (frequencies):

(1) The following channels may be used to operate any kind of device (any object or apparatus, except an **R/C** transmitter), including a model aircraft device (any small imitation of an aircraft) or a model surface craft device (any small imitation of a boat, car or vehicle for carrying people or objects, except aircraft): 26.995, 27.045, 27.095, 27.145, 27.195 and 27.255 MHz.

(2) The following channels may only be used to operate a model aircraft device:

MHz

72.01	72.13	72.25	72.37	72.49	72.61
72.03	72.15	72.27	72.39	72.51	72.63
72.05	72.17	72.29	72.41	72.53	72.65
72.07	72.19	72.31	72.43	72.55	72.67
72.09	72.21	72.33	72.45	72.57	72.69
72.11	72.23	72.35	72.47	72.59	72.71

72.73	72.79	72.85	72.91	72.97
72.75	72.81	72.87	72.93	72.99
72.77	72.83	72.89	72.95	

(3) The following channels may only be used to operate a model surface craft devices:

MHz

75.41	75.51	75.61	75.71	75.81	75.91
75.43	75.53	75.63	75.73	75.83	75.93
75.45	75.55	75.65	75.75	75.85	75.95
75.47	75.57	75.67	75.77	75.87	75.97
75.49	75.59	75.69	75.79	75.89	75.99

(b) You must share the channels with other **R/C** stations. You must cooperate in the selection and use of the channels. You must share the Channel 27.255 MHz with stations in other radio services. There is no protection from interference on any of these channels.

(c) Your **R/C** station may not transmit simultaneously on more than one channel in the 72–76 MHz band when your operation would cause harmful interference to the operation of other **R/C** stations.

(d) Your **R/C** station must stop transmitting if it interferes with:

(1) Authorized radio operations in the 72–76 MHz band; or

(2) Television reception on TV Channels 4 or 5.

(e) [Reserved]

(f) Stations in the 26–27 MHz range are not afforded any protection from interference caused by the operation of industrial, scientific or medical devices. Such stations also operate on a shared basis with other stations in the Personal Radio Services.

(g) Stations in the 72–76 MHz range are subject to the condition that interference will not be caused to the remote control of industrial equipment operating on the same or adjacent frequencies or to the reception of television transmissions on Channels 4 and 5. These frequencies are not afforded any protection from interference due to the operation of fixed and mobile stations in other services assigned to the same or adjacent frequencies.

[48 FR 24890, June 3, 1983. Redesignated at 49 FR 6098, Feb. 17, 1984, and amended at 50 FR 37857, Sept. 18, 1985; 52 FR 16263, May 4, 1987; 57 FR 40343, Sept. 3, 1992]

§ 95.208 (**R/C** Rule 8) How high may I put my antenna?

(a) *Antenna* means the radiating system (for transmitting, receiving or both) and the structure holding it up (tower, pole or mast). It also means everything else attached to the radiating system and the structure.

(b) If your antenna is mounted on a hand-held portable unit, none of the following limitations apply.

(c) If your antenna is installed at a fixed location, it (whether receiving, transmitting or both) must comply with either one of the following:

(1) The highest point must not be more than 6.10 meters (20 feet) higher than the highest point of the building or tree on which it is mounted; or

(2) The highest point must not be more than 18.3 meters (60 feet) above the ground.

(d) If your **R/C** station is located near an airport, and if your antenna structure is more than 6.1 meters (20 feet) high, you may have to obey additional restrictions. The highest point of your antenna must not exceed one meter above the airport elevation for every hundred meters of distance from the nearest point of the nearest airport runway. Differences in ground elevation between your antenna and the airport runway may complicate this formula. If your **R/C** station is near an airport, you may contact the nearest FCC field office for a worksheet to help you figure the maximum allowable height of your antenna. Consult part 17 of the FCC's Rules for more information.

Warning: Installation and removal of **R/C** station antennas near powerlines is dangerous. For your safety, follow the installation directions included with your antenna.

[48 FR 24890, June 3, 1983, as amended at 48 FR 41416, Sept. 15, 1983]

§ 95.209 (R/C Rule 9) What equipment may I use at my R/C station?

(a) Your **R/C** station may transmit only with:

(1) An FCC certificated **R/C** transmitter (certificated means the FCC has determined that certain radio equipment is capable of meeting recommended standards for operation); or

(2) A non-certificated **R/C** transmitter on Channels 26.995–27.255 MHz if it complies with the technical standards (see part 95, subpart E).

(3) Use of a transmitter outside of the band 26.955–27.255 MHz which is not certificated voids your authority to operate the station. Use of a transmitter in the band 26.995–27.255 MHz which does not comply with the technical standards voids your authority to operate the station.

(b) You may examine a list of certificated transmitters at any FCC field office.

(c) Your **R/C** station may transmit with a transmitter assembled from a kit.

(d) You must not make, or have made, any internal modification to a certificated transmitter. (See **R/C** Rule 22.) Any internal modification to a certificated transmitter cancels the certification, and use of such a transmitter voids your authority to operate the station.

[63 FR 36610, July 7, 1998]

§ 95.210 (R/C Rule 10) How much power may I use?

(a) Your **R/C** station transmitter power output must not exceed the following value under any conditions:

	Transmitter
	power
Channel	(carrier
	power)
	(watts)

27.255 MHz.....	25
26.995–27.195 MHz.....	4
72–76 MHz.....	0.75

(b) Use of a transmitter which has power output in excess of that authorized voids your authority to operate the station.

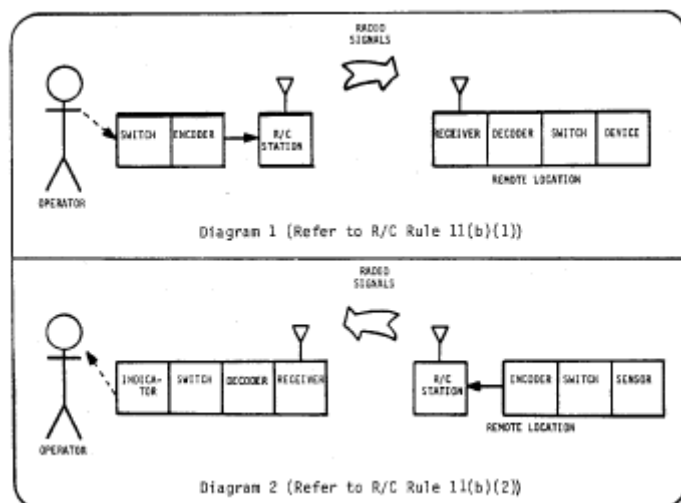
§ 95.211 (R/C Rule 11) What communications may be transmitted?

(a) You may only use your **R/C** station to transmit one-way communications. (One-way communications are transmissions which are not intended to establish communications with another station.)

(b) You may only use your **R/C** station for the following purposes:

(1) The operator turns on and/or off a device at a remote location (Refer to Diagram 1); or

(2) A sensor at a remote location turns on and/off an indicating device for the operator. (Refer to Diagram 2). Only Channels 26.995 to 27.255 MHz (see **R/C** Rule 7, §95.207(a)(1)) may be used for this purpose. (A remote location means a place distant from the operator.)



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(c) Your **R/C** station may transmit any appropriate non-voice emission.

[48 FR 24890, June 3, 1983, as amended at 50 FR 37857, Sept. 18, 1985; 57 FR 40343, Sept. 3, 1992]

§ 95.212 (R/C Rule 12) What communications are prohibited?

You must not use an **R/C** station—

(a) In connection with any activity which is against federal, state or local law;

(b) To transmit any message other than for operation of devices at remote locations (no voice, telegraphy, etc.);

- (c) To intentionally interfere with another station's transmissions;
- (d) To operate another **R/C** transmitter by remote control (See **R/C** Rule 17, §95.217); or
- (e) To transmit two-way communications.
- (f) To transmit data. Tone or other signal encoding, however, is not considered to be data when only used either for the purpose of identifying the specific device among multiple devices that the operator intends to turn on/off, or the specific sensor among multiple sensors intended to turn on/off indicating device for the operator.

[48 FR 24890, June 3, 1983, as amended at 54 FR 8336, Feb. 28, 1989; 54 FR 20476, May 11, 1989]

§ 95.213 (R/C Rule 13) May I be paid to use my R/C station?

- (a) You may not accept direct or indirect payment for transmitting with an **R/C** station.
- (b) You may use an **R/C** station to help you provide a service, and be paid for that service, as long as you are paid only for the service and not for the actual use of the **R/C** station.

§ 95.214 (R/C Rule 14) Who is responsible for R/C communications I make?

You are responsible for all communications which are made by you from an **R/C** station.

§ 95.215 (R/C Rule 15) Do I have to limit the length of my communications?

- (a) You must limit your **R/C** communications to the minimum practical time.
- (b) The only time your **R/C** communications may be a continuous signal for more than 3 minutes is when operation of the device requires at least one or more changes during each minute of the communications.
- (c) Your **R/C** station may transmit a continuous signal without modulation only if:
 - (1) You are using it to operate a model aircraft device; and
 - (2) The presence or absence of the signal operates the device.
- (d) If you show that you need a continuous signal to insure the immediate safety of life or property, the FCC may make an exception to the limitations in this rule.

§ 95.216 (R/C Rule 16) Do I identify my R/C communications?

You need not identify your **R/C** communications.

§ 95.217 (R/C Rule 17) May I operate my R/C station transmitter by remote control?

- (a) You may not operate an **R/C** transmitter by radio remote control. (See **R/C** Rule 12, §95.212.)
- (b) You may operate an **R/C** transmitter by wireline remote control if you obtain specific approval in writing from the FCC. To obtain FCC approval, you must show why you need to operate your station by wireline remote control. If you receive FCC approval, you must keep the approval as part of your station records. See **R/C** Rule 24, §95.224.

(c) Remote control means operation of an **R/C** transmitter from any place other than the location of the **R/C** transmitter. Direct mechanical control or direct electrical control by wire from some point on the same premises, craft or vehicles as the **R/C** transmitter is not considered remote control.

[48 FR 24890, June 3, 1983, as amended at 63 FR 68976, Dec. 14, 1998]

Other Things You Need To Know

§ 95.218 (R/C Rule 18) What are the penalties for violating these rules?

(a) If the FCC finds that you have willfully or repeatedly violated the Communications Act or the FCC Rules, you may have to pay as much as \$10,000 for each violation, up to a total of \$75,000. (See Section 503(b) of the Communications Act.)

(b) If the FCC finds that you have violated any section of the Communications Act or the FCC Rules, you may be ordered to stop whatever action caused the violation. (See section 312(b) of the Communications Act.)

(c) If a federal court finds that you have willfully and knowingly violated any FCC Rule, you may be fined up to \$500 for each day you committed the violation. (See section 502 of the Communications Act.)

(d) If a Federal court finds that you have willfully and knowingly violated any provision of the Communications Act, you may be fined up to \$10,000, or you may be imprisoned for one year, or both. (See section 501 of the Communications Act.)

[48 FR 24890, June 3, 1983, as amended at 57 FR 40343, Sept. 3, 1992]

§ 95.219 (R/C Rule 19) How do I answer correspondence from the FCC?

(a) If it appears to the FCC that you have violated the Communications Act or FCC rules, the FCC may send you a discrepancy notice.

(b) Within the time period stated in the notice, you must answer with:

(1) A complete written statement about the apparent discrepancy;

(2) A complete written statement about any action you have taken to correct the apparent violation and to prevent it from happening again; and

(3) The name of the person operating at the time of the apparent violation.

(c) If the FCC send you a letter asking you questions about your **R/C** radio station or its operation, you must answer each of the questions with a complete written statement within the time period stated in the letter.

(d) You must not shorten your answer by references to other communications or notices.

(e) You must send your answer to the FCC office which sent you the notice.

(f) You must keep a copy of your answer in your station records (see **R/C** Rule 24, §95.224).

§ 95.220 (R/C Rules 20) What must I do if the FCC tells me that my **R/C station is causing interference?**

(a) If the FCC tells you that your **R/C** station is causing interference for technical reasons, you must follow all instructions in the official FCC notice. (This notice may require you to have technical adjustments made to your equipment.)

(b) You must comply with any restricted hours of **R/C** station operation which may be included in the official FCC notice.

§ 95.221 (R/C Rule 21) How do I have my R/C transmitter serviced?

(a) You may adjust an antenna to your **R/C** transmitter and you may make radio checks. (A radio check means a one-way transmission for a short time in order to test the transmitter.)

(b) You are responsible for the proper operation of the station at all times and are expected to provide for observations, servicing and maintenance as often as may be necessary to ensure proper operation. Each internal repair and each internal adjustment to an FCC certificated **R/C** transmitter (see **R/C** Rule 9) must be made in accord with the Technical Regulations (see subpart E). The internal repairs or internal adjustments should be performed by or under the immediate supervision and responsibility of a person certified as technically qualified to perform transmitter maintenance and repair duties in the private land mobile services and fixed services by an organization or committee representative of users in those services.

(c) Except as provided in paragraph (d) of this section, each internal repair and each internal adjustment of an **R/C** transmitter in which signals are transmitted must be made using a nonradiating ("dummy") antenna.

(d) Brief test signals (signals not longer than one minute during any five minute period) using a radiating antenna may be transmitted in order to:

- (1) Adjust a transmitter to an antenna;
- (2) Detect or measure radiation of energy other than the intended signal; or
- (3) Tune a receiver to your **R/C** transmitter.

(Secs. 4(i) and 303(r), Communications Act of 1934, as amended, 47 U.S.C. 154(i) and 303(r), and sec. 553 of the Administrative Procedures Act, 5 U.S.C. 553)

[48 FR 24890, June 3, 1983, as amended at 49 FR 20673, May 16, 1984; 63 FR 36610, July 7, 1998]

§ 95.222 (R/C Rule 22) May I make any changes to my R/C station transmitter?

(a) You must not make or have anyone else make an internal modification to your **R/C** transmitter.

(b) Internal modification does not include:

- (1) Repair or servicing of an **R/C** station transmitter (see **R/C** Rule 21, §95.221); or
- (2) Changing plug-in modules which were certificated as part of your **R/C** transmitter.

(c) You must not operate an **R/C** transmitter which has been modified by anyone in any way, including modification to operate on unauthorized frequencies or with illegal power. (See **R/C** Rules 9 and 10, §§95.209 and 95.210.)

[48 FR 24894, June 3, 1983, as amended at 63 FR 36610, July 7, 1998]

§ 95.223 (R/C Rule 23) Do I have to make my R/C station available for inspection?

- (a) If an authorized FCC representative requests to inspect your R/C station, you must make your R/C station and records available for inspection.
- (b) An R/C station includes all of the radio equipment you use.

§ 95.224 (R/C Rule 24) What are my station records?

Your station records include the following documents, as applicable:

- (a) A copy of each response to an FCC violation notice or an FCC letter. (See R/C Rule 19, §95.219.)
- (b) Each written permission received from the FCC. (See R/C Rule 17.)

§ 95.225 (R/C Rule 25) How do I contact the FCC?

- (a) FCC National Call Center at 1–888–225–5322.
- (b) FCC World Wide Web homepage: *<http://www.fcc.gov>*.
- (c) In writing, to FCC, Attention: R/C, 1270 Fairfield Road, Gettysburg, PA 17325–7245.